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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,389	02/27/2004	Rie Miyazaki	Q80155	4816
23373	7590	12/15/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			DOTE, JANIS L	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/787,389	Applicant(s) MIYAZAKI ET AL.	
	Examiner Janis L. Dote	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The examiner acknowledges the amendments to claims 1 and 3 and the addition of claims 5-8 set forth in the amendment filed on Sep. 28, 2005. Claims 1-8 are pending.

The substitute specification filed on Sep. 28, 2005, has been entered.

The examiner notes that the originally filed specification provides antecedent basis for the block polyester broadly recited in instant claims 1 and 3 at page 34, lines 12-13. The originally filed specification at page 34, lines 12-13, states that the "block polyesters may have blocks other than the aforementioned crystalline blocks and amorphous blocks."

2. The replacement drawing sheets filed on Sep. 28, 2005, are acceptable.

3. The objection to the drawings set forth in the office action mailed on Jun. 28, 2005, paragraph 1, has been withdrawn in response to the replacement drawing sheets filed on Sep. 28, 2005.

The objections to the specification set forth in the office action mailed on Jun. 28, 2005, paragraph 3, items (1) and (2), have been withdrawn in view of applicants' response filed on Sep. 28, 2005, page 7, arguing that comparative example 5A and

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comparative examples 4B and 5B are comparative with respect to dependent claims 2 and 4, respectively, because they do not comprise a releasing agent in the amounts recited in those claims.

The rejection of claims 1-4 under 35 U.S.C. 102(b)/103(a) over US 6,300,024 B1 (Yusa), as evidenced by applicants' admissions, set forth in the office action mailed on Jun. 28, 2005, paragraph 6, has been withdrawn in response to the amendment to claims 1 and 3 set forth in the amendment filed on Sep. 28, 2005. Those amendments to claims 1 and 3 added the limitation that the binder resin comprises a block polyester and an amorphous polyester. As noted by applicants in the response filed on Sep. 28, 2005, the paragraph bridging pages 8 and 9, Yusa does not teach or suggest such a binder resin as recited in the instant claims.

4. The disclosure is objected to because of the following informalities:

(1) The use of trademarks, e.g., Bontron [sic: BONTRON] in the substitute specification filed on Sep. 28, 2005, at page 78, line 9, page 79, line 18, page 81, line 4, and page 98, line 12, and Henschel mixer [sic: HENSCHEL MIXER] at page 73, line 13, page 75, line 20, and page 76, lines 13-14, have been noted in

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this application. The trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. This example is not exhaustive. Applicants should review the entire specification for compliance.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

(2) The misspelling "BONTORON" in the term "BONTORON S-34" at page 52, line 21, of the substitute specification filed on Sep. 28, 2005. The originally filed specification at page 52, line 21, disclosed the term "Bontron S-34."

Appropriate correction is required.

Applicant's arguments filed on Sep. 28, 2005, with respect to the objection set forth in item (1) above have been fully considered but they are not persuasive.

Applicants assert that the substitute specification filed on Sep. 28, 2005, overcomes the objection set forth in item (1) above.

However, for the reasons discussed in the objection in item (1) above, the substitute specification did not capitalize all of the trademarks disclosed in the specification.

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 7 are indefinite in the phrase "{a]n image-forming apparatus comprising . . . a toner" because it is not clear what is the structural relationship between the apparatus and the toner. It is not clear how an apparatus comprises a toner. A toner is not a structural element of an apparatus, such as a charging device; it is merely a material or an article that is worked upon by the apparatus. The claims do not recite any structural relationship between the apparatus and the toner.

7. Claim 7 is objected to because of the following informalities:

The term "G(t=0.01)[Pa" is missing a closing "]"

Appropriate correction is required.

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8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 02/084408 A1 (Matsumura), as evidenced by applicants' admissions at page 6, lines 3-7, page 89, line 8, to page 90, line 11, and page 109, line 8, to page 110, line 7, of the originally filed specification; and Tables 1A, 2A, 1B, and 2B at pages 87, 88, 107, and 108, of the originally filed specification, respectively (applicants' admission I).

US 2004/0132920 A1 (US'920), filed under 35 U.S.C. 371, is the national stage of the WO application of Matsumura, and therefore is presumed to be an accurate English-language

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translation of the WO application of Matsumura. 35 USC 371(c)(2), 372(b), and 365(c). See US'920, the translation of Matsumura, for cites.

Matsumura discloses a toner comprising 100 parts by weight of toner particles comprising a polyester binder resin and a colorant. The polyester binder resin comprises two components: (1a) 15 parts by weight of a block polyester copolymer; and (2a) 85 parts by weight of a non-crystalline, i.e., amorphous polyester resin. US'920, paragraphs 0309-0310 and example 19 at paragraph 0311 and in Table 7 at page 28. The polyester binder resin meets the binder resin limitations recited in instant claims 1 and 3. Matsumura discloses that the binder resin is colorless and transparent. Table 7, example 19. According to Matsumura, when the block polyester copolymer (1a) and the non-crystalline polyester resin (2a) are compatible, the resultant binder resin is colorless. US'920, paragraph 0139.

Matsumura does not disclose that the toner has the relaxation modulus properties recited in instant claims 1 and 3. However, as discussed supra, the Matsumura toner meets the toner compositional limitations recited in the instant claims. Matsumura also discloses that its toner exhibits a low temperature fixability of 115°C, and a region of no offset between 105 to greater than 210°C, i.e., a minimum non-offset



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temperature of 105°C. Table 7, example 19. These properties appear to be the same properties sought by applicants.

The originally filed specification at page 6, lines 3-7, discloses that the "object of the present invention is to provide a toner capable of effectively repressing hot offset of a toner in fixing characteristics, while effectively preventing the winding of a recording medium round a fixing member."

The originally filed specification shows that in an oil-less fixing device, toners that meet the relaxation modulus properties recited in instant claim 1 exhibited no winding of paper around the pressing roller, and no-offset in a temperature range of 130 to 195°C, 145-200°C, or 140-200°C. See Table 1A at page 87 of the originally filed specification, examples 1A to 5A; and page 89, lines 8-17.

Toners that do not possess the relaxation modulus properties recited in instant claim 1 exhibited winding of paper around the pressing roller and no-offset in a narrower temperature range than the toners of examples 1A to 5A, i.e., of 140 to 150°C, 130-165°C, or 130-170°C. See Table 2A at page 88, comparative examples 1A to 3A; and page 89, line 18, to page 90, line 11.

The originally filed specification also shows that in an oil-less fixing device, toners that meet the relaxation modulus

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limitations recited in instant claim 3 exhibited no winding of paper around the pressing roller, no-offset in a temperature range of 130 to 195°C, 145-200°C, or 140-200°C. See Table 1B at page 107 of the originally filed specification, examples 1B to 5B; and page 109, lines 8-17.

Toners that do not possess the relaxation modulus limitations recited in instant claim 3 exhibited winding of paper around the pressing roller and no-offset in a narrower temperature range than the toners of examples 1B to 5B, i.e., of 140 to 150°C, 130-165°C, or 130-170°C. See Table 2B at page 108, comparative examples 1B to 3B; and page 109, line 17, to page 110, line 7.

Thus, because the Matsumura toner meets the toner compositional limitations recited in the instant claims 1 and 3 and because the Matsumura toner appears to have the same fixing properties sought by applicants, it is reasonable to presume that the toner disclosed by Matsumura has the relaxation modulus properties recited in instant claims 1 and 3. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

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11. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2005/0100807 A1 (Yamazaki), as evidenced by applicants' admissions I.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Yamazaki discloses a toner comprising 100 parts by weight of a polyester binder resin, a colorant, and 2 parts by weight of carnauba wax, i.e., a release agent. See paragraphs 0383-0398; example 11 at paragraph 0411 and in Table 1 at page 31. The polyester binder resin comprises two components: 15 parts by weight of polyester block copolymer B'; and 85 parts by weight of amorphous polyester resin A. The amount of carnauba wax is within the releasing agent amount recited in instant claims 2 and 4. The polyester binder resin meets the polyester binder resin limitations recited in instant claims 1 and 3.

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Yamazaki does not disclose that the toner has the relaxation modulus properties recited in instant claims 1 and 3. However, as discussed supra, the Yamazaki toner meets the toner compositional limitations recited in instant claims 1-4. Yamazaki also discloses that the toner exhibits good fixability for a temperature range of 120-210°C with no occurrence of offset. Yamazaki, paragraph 0437 and Table 3, example 11. These properties appear to be the same properties sought by applicants.

The originally filed specification at page 6, lines 3-7, discloses that the "object of the present invention is to provide a toner capable of effectively repressing hot offset of a toner in fixing characteristics, while effectively preventing the winding of a recording medium round a fixing member." The discussion of applicants' admissions I in paragraph 10 above is incorporated herein by reference.

Thus, because the Yamazaki toner meets the toner compositional limitations recited in the instant claims 1-4 and because the Yamazaki toner appears to have the same fixing properties sought by applicants, it is reasonable to presume that the toner disclosed by Yamazaki has the relaxation modulus properties recited in instant claims 1 and 3. The burden is on applicants to prove otherwise. Fitzgerald, supra.

12. Claims 1-4 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/787,394 (Application'394), as evidenced by that portion of the disclosure in Application'394 that supports the claimed subject matter in claims 1 and 2 of Application'394, and applicants' admissions in examples 1A and 1B and Tables 1A and 1B of the instant specification.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter in Applicatin'394 renders obvious the toner recited in the instant claims.

Reference claim 1 covers a toner that has an "initial relaxation modulus  $G(t=0.01)$  [Pa] of the toner at 120°C, in relaxation time of 0.01 sec, of  $G(t=0.01)$  (Pa)  $\geq 1.0 \times 10^5$  [Pa]," which meets the  $G(t=0.01)$  at 120°C range of  $\geq 1.0 \times 10^5$  Pa recited in instant claims 1 and 3. Reference claim 2, which depends on reference claim 1, requires that the toner comprise a releasing agent in an amount of 3 wt% or less, which meets the

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toner composition limitation recited in instant claims 2 and 4. Reference claim 1 further recites that the toner can be used in an image-forming apparatus equipped with an oil-less fixing device as recited in reference claim 1.

The claims of Application'394 do not recite that the toner has a ratio of  $G(t=0.01)$  to  $G(t=0.1)$  at  $180^{\circ}\text{C}$ , in relaxation time of 0.1 sec, of  $(G(t=0.01)/G(t=0.1)) \geq 20$  as recited in instant claim 1. Nor do the claims of Application'394 recite that the toner has an initial relaxation modulus  $G(t=0.01)$  at  $180^{\circ}\text{C}$ , in relaxation time of 0.01 sec,  $\geq 1.0 \times 10^4$  Pa as recited in instant claim 3. Nor do the claims of Application'394 recite the binder resin recited in instant claims 1 and 3. However, that portion of Application'394 that supports the toner recited in reference claims 1 and 2 teaches that such a toner provides results in winding, "good region of offset," and transparency (Haze) that are the same or similar to the results obtained from a toner that supports the toner recited in instant claims 1 and 2 disclosed in the instant specification, or from a toner that supports the toner recited in instant claims 3 and 4 disclosed in the instant specification. See Application'394, Table 1A, toner 1A; and the instant application, Table 1A, toner 1A, and Table 1B, toner 1B. In addition, toner 1A in Application'394 comprises a toner binder resin that is similar to that used in

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toners 1A and 1B in the instant specification. Toner 1A in Application'394 is also made by process steps that are same as those used to make the toner 1A and 1B in the instant specification. When addressing the use of whether a claim in the application defines an obvious variation of an invention claimed in a patent, "those portions of the specification which support the patent claims may also be examined and considered." See MPEP 804,II.B.1, pp. 800-22 to 800-23, citing In re Vogel, 164 USPQ 619, 622 (CCPA 1970). Thus, because the toner disclosed in Application'394 that supports the toner recited in reference claims 1 and 2 exhibits the same properties as the toners that support the toners recited in instant claims 1-4 disclosed in the instant specification, it is reasonable to presume that the toner claimed in Application'394 has a ratio of  $G(t=0.01)$  to  $G(t=0.1)$  at  $180^{\circ}\text{C}$  as recited in instant claim 1, an initial relaxation modulus  $G(t=0.01)$  at  $180^{\circ}\text{C}$  as recited in instant claim 3, and the binder resin recited in instant claims 1 and 3. In other words, the two toners appear to be the same material. The burden is on applicants to prove otherwise. Fitzgerald, supra.

It would have been obvious for a person having ordinary skill in the art, in view of the subject matter claimed in Application'394 and that portion in Application'394 that

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supports the subject matter claimed in Application'394, to make and use a toner as recited in the instant claims because that person would have had a reasonable expectation of successfully obtaining a toner that is capable of forming fixed toned images using an oil-less fixing device.

The recitation "for use in an image-forming apparatus equipped with an oil-less fixing unit comprising a main heating member and a pressing member, the main heating member gets in contact with the back of an unfixed toner on a recording medium and fixes the unfixed toner at a nip part of the main heating member and the pressing member, the main heating member and the pressing member define a boundary surface thereof, and the surface takes a configuration protruding toward the side of the main heating member" in claims 1 and 3 is merely a statement of intended use that does not distinguish the toner composition claimed in Application'394. As discussed above, the toner claimed in Application'394, as evidenced by that portion in Application'394 that supports the subject matter claimed in Application'394, meets the limitations recited in the instant claims. Thus, the intended use recited in the instant claims does not result in a compositional or structural difference between the toner recited in the instant claims and the toner claimed in Application'394.



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Applicants' arguments filed on Sep. 28, 2005, have been fully considered but they are not persuasive.

Applicants state that because the rejection is provisional, applicants choose to postpone responding to this rejection until the time at which either application issues as a patent.

Because applicants did not provide any arguments traversing the rejection, the rejection stands.

13. Claims 5-8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The prior art of record does not teach or suggest an image-forming apparatus comprising the oil-less fixing apparatus and toner as recited in the instant claims.

14. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened

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statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (571) 273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD  
Dec. 11, 2005

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